



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,389	08/23/2006	Hideobu Mikami	1007-035	6987

7590 03/26/2010
James V Costigan
Hedman & Costigan
1185 Avenue of the Americas
New York, NY 10036-2646

EXAMINER

GOLOBOY, JAMES C

ART UNIT	PAPER NUMBER
----------	--------------

1797

MAIL DATE	DELIVERY MODE
-----------	---------------

03/26/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,389	Applicant(s) MIKAMI, HIDENOBU	
	Examiner James Goloboy	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,2,4-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment filed 1/11/10 overcomes the rejections set forth in the office action mailed 10/9/09. New grounds of rejection over the Kondo reference, necessitated by the amendments are set forth below. Additional new grounds of rejection necessitated by the amendment are also set forth below.

Claim Rejections - 35 USC § 102

2. Claims 1 and 4-5 rejected under 35 U.S.C. 102(b) as being anticipated by Kondo.

In Table 1, comparative example 2, Kondo discloses a grease consisting of a base oil, a thickener (diurea), and 3.0% by weight of a molybdenum dithiocarbamate extreme pressure agent. In footnote 5, Kondo teaches that the molybdenum dithiocarbamate is Molyvan 822, which according to Table 1 of the current specification has 2.6 mgS/g active sulfur. The product of the amount of active sulfur and the amount of molybdenum dithiocarbamate is 7.8, within the range recited in claim 1. The grease of Kondo's comparative example 2 therefore meets the limitations of claims 1 and 4. As the grease of Kondo must be formed by adding the thickener and the extreme pressure agent to the base oil, claim 5 is met as well.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1797

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki (U.S. Pat. No. 6,258,760).

In column 2 lines 1-23, Ozaki discloses a grease containing a base oil, a urea thickener, molybdenum dithiocarbamate, and a molybdenum dithiophosphate, a sulfur-containing additive which can be a zinc dithiocarbamate or a sulfurized olefin. As all the required additives meet the limitations of the extreme pressure agents recited in amended claim 1, the grease of Ozaki meets the “consisting of” limitation of amended claim 1. In column 2 lines 24-35 Ozaki discloses that the grease can further comprise a zinc dithiophosphate, also as recited in claim 1. The mixture of extreme pressure additives meets the limitations of claim 2 and the urea thickener meets the limitations of claim 4. As the grease of Ozaki must be formed by adding the thickener and the extreme pressure agent to the base oil, claim 5 is met as well.

Ozaki does not disclose the amount of active sulfur in the additives. Ozaki discloses in column 2 lines 18-23 that the composition comprises the additives in an amount of less than 10% by weight. Based on the amounts of active sulfur in the

Art Unit: 1797

sample additives disclosed in the current specification, the range of possible products in the compositions of Ozaki will clearly encompass the claimed range of products. See MPEP 2144.05(I): “In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);”

6. Claims 1, 4-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takata (U.S. Pat. No. 6,020,290).

In column 2 lines 24-30 Takata discloses a grease compositions for rolling bearings comprising a base oil, a urea thickener, and a zinc dithiocarbamate, all as recited in claims 1 and 4. As the composition must be made by adding the thickener and the zinc dithiocarbamate to the base oil, claim 5 is met as well. The use of the composition in rolling bearings meets the limitations of claims 6-7. In column 2 lines 42-52 Takata discloses that the base oil can be a polyalphaolefin, as recited in claim 9.

While Takata does not disclose the amount of active sulfur in the zinc dithiocarbamate, given the broad concentration range of 0.05 to 10 parts by weight, it is clear that the range of products for the composition of Takata will overlap or encompass the claimed range. See MPEP 2144.05(I): “In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);”

Allowable Subject Matter

Art Unit: 1797

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 8 requires the thickener to be a lithium soap. The prior art, as exemplified above, only teaches urea-thickened greases meeting the claims, and teaches away from lithium soap-thickened greases. While lithium soap greases are known in the art, the prior art does not teach greases consisting of a base oil, lithium soap thickener, and extreme pressure agents and further meeting the limitation regarding active sulfur.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1797

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is (571)272-2476. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

/Glenn A Caldarola/
Supervisory Patent Examiner, Art
Unit 1797